RSA

CHILD SAFETY IN CARS

A Guide to Selecting and Fitting Child Restraints

Údarás Um Shábháilteacht Ar Bhóithre
Road Safety Authority

20/02/2012 17:21

Key Points

- where safety belts have been fitted they must be worn,
- children under 3 years of age may not travel in a car or goods vehicle (other than a taxi) unless restrained in a child car seat,
- children aged 3 years or over who are under 150 centimetres in height and weighing less than 36 kilograms (i.e. generally children up to 11/12 years of age) must use an appropriate child car seat when travelling in cars or goods vehicles fitted with safety belts,
- children over 3 years of age must travel in a rear seat in vehicles not fitted with safety belts,
- rear-facing child car seats must not be used in seats protected with an active frontal air-bag, and child restraints must be in accordance with EU or United Nations-Economic Commission for Europe (UN-ECE) standards (look for the E mark)
- Drivers have a legal responsibility to ensure passengers aged under 17 are appropriately restrained
- Read this booklet for advice on choosing the right child car seat for your child or contact the Road Safety Authority to get a copy of a free DVD on fitting child car seats

This booklet is intended as a general guide in helping you choose the appropriate restraint for your child or children. It is not an interpretation of the law

© October 2009

Unattended Children in a Vehicle

- Infants or young children should never be left unattended in a motor vehicle. A variety of hazards can arise, even if you are absent for a short duration.
- Such hazards include an outbreak of fire, breathing problems on warm days and accidental trapping of children in electronically operated windows.
- Always remove the ignition key when the vehicle is not in use.
- For further information on child safety in cars see **www.rsa.ie/childsafetyincars**

acknowledgements

The Road Safety Authority would like to thank RoSPA (The Royal Society for the Prevention of Accidents) for its permission to reproduce extracts and images from their child car seats website www.childcarseats.org.uk

Thanks also to Jim Ellis, Department of Transport, Dr. Alf Nicholson, Our Lady of Lourdes Hospital, Drogheda, the Garda National Traffic Bureau, Tony Kealy, of Tony Kealy's Baby Shop, Walkinstown, Dublin.

All information pictures and text in this booklet is the copyright of the Royal Society for the Prevention of Accidents (RoSPA) or the Road Safety Authority (RSA). No part of this publication may be reproduced without prior permission. Requests for permission should be directed to the RSA (info@rsa.ie) and RoSPA (info@childcarseats.org.uk).

20/02/2012 17:21

Working To Save Lives

Údarás Um Shábháilteacht Ar Bhóithre
Road Safety Authority

Páirc Ghnó Ghleann na Muaidhe, Cnoc an tSabhaircín, Bóthar Bhaile
Átha Cliath, Béal an Átha, Co. Mhaigh Eo
Moy Valley Business Park, Primrose Hill, Dublin Road, Ballina, Co. Mayo
locall: 1890 50 60 80 tel: (096) 25 000 fax: (096) 25 252
email: info@rsa.ie website: www.rsa.ie

Designed by Dave Curran Design and
Printed by Colorman 2012

22593 RSA Child Safety Cov 2012.indd 2-3

Contents

2 Introduction
3 Types of Child Seats
6-7 Fitting Child Seats
8 Using Child Seats
8-9 Buying a Child Seat
10 Problem Behaviour?
11 Safety Belt Wearing During Pregnancy
12 Premature and Low Birth Weight Babies
12 Choosing a Family Car
13 Unattended Children in a Vehicle

22593 RSA Child Safety Ins 2012.indd 1 23/02/2012 12:16

Introduction

Children are the most vulnerable members of our society and no parent or guardian would knowingly put their child's life in danger.

However an astonishing number of parents allow their children to travel unrestrained in vehicles, placing their lives and safety in peril.

Research into child car passenger fatalities in the period 1997 to 2009 reveals that 30% of child fatalities were found not to have been using a child restraint or safety belt*.

In a crash at just 50km/h (30 mph), an unrestrained child would be thrown forward with a force 30 to 60 times their body weight. They would be thrown about inside the vehicle, injuring themselves and quite possibly seriously injuring or even killing other people inside the vehicle.
They are also likely to be ejected from the car through one of the windows.

It is not safe to hold a child on your lap. In a crash, the child could be crushed between your body and part of the car's interior. Even if you are using a safety belt, the child would be torn from your arms - you would not be able to hold onto them, no matter how hard you try. It is also dangerous to put a safety belt around yourself and a child (or around two children). The safest way for children to travel in cars is in a child seat that is suitable for their weight and height.

Since the 25th August, 2003 drivers face up to 4 penalty points and a fine of up to €800 if convicted in court for a failure to observe the legal obligations with respect to the wearing of safety belts and child restraints.

** Child Casualty Report, 1997 – 2009, Road Safety Authority*

22593 RSA Child Safety Ins 2012.indd 2 23/02/2012 12:16

Types of Child Seats

A properly fitted child restraint keeps the child in their seat, preventing them from being thrown about inside or ejected from the vehicle. It also absorbs some of the impact force. This means that your child is much less likely to be killed or injured in a crash. An appropriate child restraint is one which:

- Conforms to the United Nation standard, ECE Regulation 44-03 or later version of the standard, 44.04 (look for the E mark).
- is suitable for the child's weight and height.
- is correctly fitted according to the manufacturer's instructions.

Child restraints are divided into categories, according to the weight of the children for whom they are suitable. These correspond broadly to different age groups, **but it is the weight of the child that is most important when deciding what type of child restraint to use.**

Retailers often describe child restraints in terms of 'Stages'

Stage 1 = Groups 0 and 0+ Stage 2 = Group 1 Stage 3 = Group 2 Stage 4 = Group 3

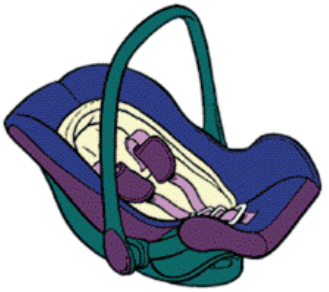
Type of restraint	Weight Range	Approx Age range
Groups 0 Rearward-facing baby seat	For babies up to 10 kgs (22 lbs)	birth to 6-9 months
Groups 0+ Rearward-facing baby seat	For babies up to 13kg (29lbs)	birth to 12-15 months
Group 1 Forward-facing child seat	9-18 kgs (20-40 lbs)	9 months - 4 years
Group 2 Booster seat	15 - 25 kgs (33 - 55 lbs)	4 to 6 years
Group 3 Booster cushion	22 - 36 kgs (48 - 79 lbs)	6 - 11/12 years

22593 RSA Child Safety Ins 2012.indd 3 23/02/2012 12:16

Some child restraints are capable of being converted as the child grows and, therefore, fit into more than one group or stage. The main types are:

Rearward-facing Baby Seats

Group 0 for babies up to 10 kgs (22 lbs) roughly from birth to 6-9 months, or Group 0+ for babies up to 13kg (29lbs) roughly from birth to 12-15 months. They can be used in the front or rear of the car. It is safer to put them in the rear.



Never put them in the front passenger seat if there is a passenger airbag!

Rearward-facing seats provide greater protection for the baby's head, neck and spine than forward-facing seats. So, it is best to keep your baby in a rearward-facing seat for as long as possible. Only move them to a forward-facing seat once they have exceeded the maximum weight for the baby seat, or the top of their head is higher than the top of the seat.

Forward-facing child seat

Group 1 for children weighing 9-18 kgs
(20-40 lbs) roughly from 9 months – 4 years

Only move your child to a booster seat once they have exceeded the maximum weight for the child seat, or the top of their head is higher than the top of the seat.

Booster seat

Group 2 for children weighing 15 – 25 kgs
(33 – 55 lbs) roughly 4 to 6 years

Some Booster seats are designed to be converted into a booster cushion by detaching the back rest.

22593 RSA Child Safety Ins 2012.indd 4 23/02/2012 12:16

Booster Cushion

Group 3 for children weighing 22 – 36 kgs (48 – 79 lbs) roughly from 6 – 11/12 years.
Booster seats and booster cushions do not have an integral harness to hold the child in place. The adult safety belt goes around the child and the seat. So it is important that the safety belt is correctly adjusted.

Safety Belts

Safety belts are designed for people 150 cms (about 5ft) and taller. Don't let your child graduate to using the safety belt too soon. Children are usually big enough to use the safety belt by the time they are about 11 years old, although this varies from child to child. Three-point safety belts (lap and diagonal) provide greater protection than lap belts. However, lap belts are far better than no belt at all. The lap belt should be placed over the pelvis (from hip-bone to hip-bone), not the stomach and worn as tight as possible.

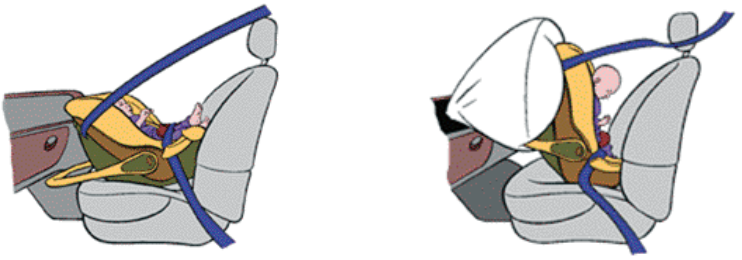
The basic points to note are:

- the belt should be worn as tight as possible
- the lap belt should go over the pelvic region, not the stomach
- the diagonal strap should rest over the shoulder, not the neck.

22593 RSA Child Safety Ins 2012.indd 5 23/02/2012 12:16

Fitting Child Seats

If you use the child seat in more than one car, follow the advice below for each car. It's safer to fit child seats in the rear of the car, but if necessary they can be fitted in the front. But, **NEVER** fit a rearward-facing baby seat in the front if there is an airbag on the passenger side of the car. If the airbag went off it would strike the seat with considerable force.

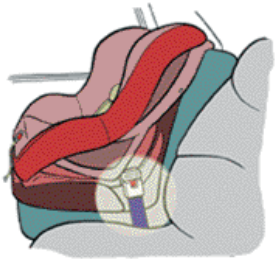


NEVER fit a rearward-facing baby seat in the front if there is a passenger airbag

Read and follow the manufacturer's instructions for fitting the seat. If you have lost the instructions, contact the child seat manufacturer to check if they can provide a copy.

The child seat should rest firmly on the car seat, with hardly any forwards or sideways movement.

Make sure the safety belt passes through all the correct guides on the child seat. Some seats have an alternative routing if the safety belt is too short to go around the main route.



Check that the safety belt buckle is not resting on the child seat frame (this is known as 'buckle crunch').

22593 RSA Child Safety Ins 2012.indd 6 23/02/2012 12:16

Push your weight into the child seat as you tighten the safety belt to make sure the child seat is securely held. There should be no slack in the safety belt.

Keep the fitting instructions with the child seat in the car. If you are unsure about anything, seek advice and get a professional to check the fitting of the child seat for you.

Never modify the seat or adult safety belt to make it fit.

If you are fitting a forward-facing child seat in the front of a car, make sure the car seat is as far back as it will go, so the child is as far as possible from the dashboard. This reduces the possibility of head or chest injuries in a crash.

If you take the child seat out of the car, make sure you fit it properly every time you put it back in. If it stays in the car permanently, check it regularly to make sure it is still securely held.

To be effective, child restraints must be fitted and used correctly. Surveys have consistently shown that a high proportion of child restraints are incorrectly fitted, usually for one or more of these reasons:

- Safety belt too loose
- Safety belt not routed through child seat correctly
- Buckle crunch (buckle resting against part of the child seat's frame, which means that in a crash it might break or snap open)
- Handle on baby seat not positioned properly
- Child seat not compatible with car
- Child seat old and in bad condition
- Child too large or too small for the seat they are using.

22593 RSA Child Safety Ins 2012.indd 7 23/02/2012 12:16

Using Child Seats

Your child should use the child seat for every single journey, no matter how short. Take time to get the child comfortably strapped in. Make sure the seat's harness (if it has one) is correctly adjusted for your child. It should be quite tight, so that only one or two fingers can fit between the child's chest and harness.

Clothing can affect how snugly the harness fits, so check it every journey. The harness buckle should not rest over the child's tummy. If you are using a booster seat or cushion, the adult safety belt restrains both the child and the seat or cushion.

Never tuck the safety belt under the child's arm or behind their back. Some children go through a phase of slipping out of the harness or releasing the buckle. But do not modify the buckle to prevent this; you might affect the quick release mechanism.

Always set a good example by wearing your safety belt.

Buying a Child Seat

When choosing a new child seat, it is essential to ensure that it fits in your car (or cars if you use it in more than one) and is suitable for your child. Use this checklist to help you select the child seat that is most suitable for your child and your vehicle(s).

Is the child seat suitable for my child?

It is essential that the child restraint is suitable for your child. Check the packaging before you buy.

Is the Child Seat suitable for my car(s)?

The shape of car seats, the length of safety belts and the position of safety belt anchor points differ between cars. So, not all child seats fit all cars. For instance, the safety belt in a particular car may be too short to go around a certain child seat. It is essential to check that the child seat you purchase will fit in your car and that it will fit in all the seat positions you intend to use it.
The manufacturer and retailer should advise you.

22593 RSA Child Safety Ins 2012.indd 8 23/02/2012 12:16

How helpful is the Retailer?

Some retailers are very knowledgeable about child restraints, others are not. Try to find a retailer who will let you try the seat in your car first and who will demonstrate how it should be fitted. If this is not possible, make sure you can return the seat if it is not suitable.

Does the seat meet the latest safety Standard?

Check that the seat you are buying meets the latest safety standard: ECE Regulation 44-03 or later standard 44-04 (look for the E mark).

Does my car have airbags?

If your car has an airbag in the front on the passenger's side, you must not use a rearward-facing seat in the front. So make sure the seat will fit in the rear of your car.

Are the Instructions easy to understand and follow?

Many people find fitting child seats difficult. The most important thing is to read and follow the manufacturer's instructions. Some instruction booklets are clearly written and well illustrated. Others are difficult to understand and use. Ask to see the instruction booklet before you buy.

ISOFIX

A new child restraint system called ISOFIX is being introduced. ISOFIX points are fixed connectors in a car's structure into which an ISOFIX child seat can simply be plugged. Many new vehicles have ISOFIX points built in when they are manufactured, and child seat manufacturers are beginning to produce ISOFIX child seats which have been approved for use in specific car models.

Check that the ISOFIX child seat will fit the vehicle(s) in which it is being used. Ask whether an additional top tether on the seat is needed. Some seats have a 'foot' that extends to the vehicle floor, in which case check it does not rest on the cover of an underfloor compartment.

Second-hand Child Restraints

The best advice is not to buy or use a second-hand child seat. You cannot be certain of its history. It may have been involved in a crash and the damage may not be visible. Very often the instructions are missing from second-hand seats which makes it more difficult to be sure that you are fitting and using it correctly. Second-hand seats are also likely to be older, to have suffered more wear and tear and may not be designed to current safety standards. It is far better to buy a new child seat. Prices vary and it is not necessary to buy the most expensive one. If you must use a second-hand seat, only accept one from a family member or friend (don't buy one from a second-hand shop or through the classified ads) and then only if you are absolutely certain that you know its history, it comes with the original instructions and it is not too old.

Replacing a Child Seat After a Crash

A child car seat that was in a car that has been involved in an crash should be replaced, even if there is no visible damage. It is possible that it will have been weakened to such an extent that it will not provide the same level of protection in another crash.

22593 RSA Child Safety Ins 2012.indd 9 23/02/2012 12:16

Problem Behaviour ?

Some children go through a phase of constantly slipping out of the child seat harness or safety belt, or releasing the buckle, during journeys. This is extremely worrying for parents and very frustrating – once a child has learnt how to do this, it is very difficult to stop them. The good news is that it usually seems to be a phase which they grow out of.

The following points may help to stop your child undoing their safety belt:

- Ensure the child knows WHY they are required to wear a safety belt, i.e. it keeps them safe from harm.
- Depending on the age of the child, make 'doing up the belt' into a chant or song, which the child will enjoy participating in.
- Show the child that you have to wear a safety belt also – perhaps you can both sing or chant as you are doing up your own belt too.
- Do not start the engine until you are sure that the child is wearing a safety belt correctly AND that your belt is correctly fastened (perhaps this could form part of a game also – ask the child if every one in the car is belted up and whether it's OK to drive off).
- If possible (e.g. on a leisure trip, or a trip to friends), tell the child that you cannot take them if their belt is not done up – as you don't want any harm to come to them.
- If the child undoes the belt during the journey, pull over as soon as it is safe to do so and repeat that the belt must be done up to save them from being hurt.
- If the child repeatedly unfastens the safety belt because they are restless and bored, distract them by 'I-Spy' games through the windows, songs which they are able to join in with, toys and games that they are able to play with in the car. Please remember though that it is most important for the driver NOT to be distracted by these activities.

The most important thing to remember is to be CONSISTENT. ALWAYS insist that your child is wearing a safety belt. DO NOT give in by letting the child travel without a safety belt being fastened safely around them – not only are you legally required to do this, but you will be placing your child at risk of serious injury or death if your vehicle is involved in a crash. It will also be more difficult to insist that the child wears their safety belt next time they are in the car.

22593 RSA Child Safety Ins 2012.indd 10 23/02/2012 12:16

Safety Belt Wearing During Pregnancy

Pregnancy, other than when the subject of a medical exemption, does not of itself provide an exemption from the law in relation to using a safety belt.

The safest way for pregnant women to wear a safety belt is to:

- Place the diagonal strap between the breasts (over the breastbone) with the strap resting over the shoulder, not the neck.
- Place the lap belt flat on the thighs, fitting comfortably beneath the enlarged abdomen, and over the pelvis, not the bump.
- The belt should be worn as tight as possible. In this way the forces applied in a sudden impact can be absorbed by the body's frame.

It is not advisable to wear 'Lap-only-Belts' as opposed to lap and diagonal belts as they have been shown to cause grave injuries to unborn children in the event of sudden deceleration.

Mother and unborn child are both much safer in a collision if a lap and diagonal safety belt is being worn correctly.

22593 RSA Child Safety Ins 2012.indd 11 23/02/2012 12:16

Premature and Low Birth Weight Babies

Research in the USA indicates that premature and low-birth weight babies can be susceptible to breathing problems if they stay in a baby seat for long periods.

It was found that some new born babies developed breathing problems after one hour in the baby seat and some premature babies stopped breathing for a short period.

If you have a premature or low-birth weight baby:

- Ask the hospital to assess whether it is safe for the baby to travel in a baby seat before you are discharged.
- Do not keep the baby in the seat for longer than necessary and keep car travel to a minimum in the first few months.
- Recline the baby seat as much as possible when in the car (making sure you follow the manufacturer's instructions for fitting and using it).
- Never leave the child unattended in the seat. Try to have someone else do the driving, so you can sit next to the baby to keep an eye on him or her.
- Only use the baby seat in the vehicle and not on an integrated travel system or for activities which include feeding or sleeping.
- If in any doubt, consult the hospital or your GP.

Choosing a Family Car

If you are considering buying a new car for the family you should examine closely information regarding the safety performance of individual car models.

One such source is Euro NCAP. It provides motoring consumers with a realistic and independent assessment of the safety performance of some of the most popular cars sold in Europe.

Information can be found at:
www.euroncap.com

22593 RSA Child Safety Ins 2012.indd 12 23/02/2012 12:16